

**ABSTRACT**

[0055] A scintillator assembly with at least one scintillator pixel. A reflector is preformed, and at least a portion of the scintillator material fits within the preformed reflector. The reflector assembly may have a single pre-formed unit or a plurality of subassemblies, one or a plurality of which having been pre-formed prior to insertion of one or a plurality of scintillator pixels. The reflector assembly may provide for the formation of intentional air gaps between one or a plurality of reflector walls and one or a plurality of scintillator pixels.

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